

What is claimed is:

1. A system for correcting approximate expressions used in geometrical correction of projected images, comprising:

a projector which operates under the control of a program; and

a screen onto which an image emitted from said projector is

5 projected,

wherein said projector includes means for performing a geometrical transformation on a projected image emitted from said projector in accordance with the shape of a projection surface of said screen using a predetermined expression to correct the projected image for distortion due to the shape of the projection surface of said screen, and a value entered for substitution into a variable to transform said approximate expression.

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2. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 1, wherein said projector comprises:

input means for entering a value for substitution into a variable to

5 transform the approximate expression;

calculating means for calculating numerical values for transformation using the entered value and the approximate expression previously held in said projector;

image processing means for transforming the projected image

10 emitted from said projector based on the result of the calculation made by said calculating means; and

optical output means for projecting the image transformed by said image processing means.

3. A system for correcting approximate expressions used in geometrical correction of projected images, comprising:

a computer which operates under the control of a program;

a projector; and

5 a screen onto which a projected image emitted from said projector is projected, wherein:

said computer includes calculating means for calculating numerical values for transformation of the projected image emitted from said projector

from a predetermined expression to correct the projected image for distortion

10 due to the shape of a projection surface of said screen, and values entered for substitution into a variable for transforming the approximate expression, and

said projector includes image processing means for receiving the numerical value to transform of the projected image calculated by said

computer to transform the projected image, and optical output means for

15 projecting the image transformed by said image processing means onto said screen.

4. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 1, wherein said screen includes a cylindrical or a spherical projection surface, and said approximate expression is an equation representative of a parabola.

5. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 2, wherein said screen includes a cylindrical or spherical projection surface, and said approximate expression is an equation representative of a parabola.

6. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 3, wherein said screen includes a cylindrical or spherical projection surface, and said approximate expression is an equation representative of a parabola.
7. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 1, wherein said screen includes a projection surface composed of walls with a corner between both walls, and said approximate expression is a linear equation for correcting
5 the corner between said walls.
8. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 2, wherein said screen includes a projection surface composed of walls with a corner between both walls, and said approximate expression is a linear equation for correcting
5 the corner between said walls.
9. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 3, wherein said screen includes a projection surface composed of walls with a corner between both walls, and said approximate expression is a linear equation for correcting
5 the corner between said walls.
10. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 1, wherein said screen includes a sinusoidally waved projection surface, and said approximate expression is an equation representative of a trigonometric function.

11. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 2, wherein said screen includes a sinusoidally waved projection surface, and said approximate expression is an equation representative of a trigonometric function.

12. The system for correcting approximate expressions used in geometrical correction of projected images according to claim 3, wherein said screen includes a sinusoidally waved projection surface, and said approximate expression is an equation representative of a trigonometric function.